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AUG 25 2006

REMARKS

Claims 1-22 are pending. Claims 1-22 stand rejected. Claims 1, 9, 18, 19 and 22 have been amended; no new matter has been added. Applicants respectfully request reconsideration of the rejections set forth in the Office Action dated May 26, 2006 in view of the preceding amendments and the following remarks.

Applicants thank the Examiner for the courtesy extended during the telephonic interview with Applicants' representative on August 23, 2006. During this interview, the §103 rejections were discussed.

Claim Objections

Claim 22 has been amended to overcome the informalities cited by the Examiner; withdrawal of the objection is respectfully requested.

In the Claims

Independent claims 1, 9, 19 and 22 have been amended to recite the aspects of the invention that were, and are, intended to be claimed by the pending claims. Independent claim 1 now recites:

A network device for transmitting compressed video data onto a channel, the network device comprising:
a bit rate converter designed or configured to transcode compressed video data from multiple bitstreams to produce multiple transcoded bitstreams;
a multiplexer designed or configured to
a) schedule packets from the multiple transcoded bitstreams;
b) determine if bandwidth is available on the channel after the multiple transcoded bitstreams have been scheduled by the multiplexer, and if so, allocate additional packets from the multiple transcoded bitstreams to use the available bandwidth; and
a network interface designed or configured to output data packets from the multiple transcoded bitstreams onto the channel.

Support for these amendments can be found throughout the Specification, and in particular, on page 6 line 6 to page 17 line 32, for example.

Rejections Under 35 U.S.C. §103

Claims 1-22 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application No. 2001/0038668 in view of 2002/0136298 issued to Gatepin and Anantharamu et al., respectively.

Amended independent claim 1 now recites a multiplexer designed or configured to “determine if bandwidth is available on the channel after the multiple transcoded bitstreams have been scheduled by the multiplexer, and if so, allocate additional packets from the multiple transcoded bitstreams to use the available bandwidth”.

Thus, the claims recite allocating additional packets into bandwidth that is available after transcoding and a first scheduling has been performed. The art of record is silent on this combination of limitations.

Gatepin is completely silent on allocating additional packets after a first scheduling. Gatepin teaches a multiplexing system that applies a weight factor to incoming data into a set of transcoders to better distribute bandwidth between incoming bitstreams. He notes that his invention uses information from the input compressed data to compute the bit rate allocated to each transcoder (see paragraph 25, last 8 lines). He is silent on what happens to the available bandwidth after transcoding, and especially after scheduling. Gatepin does not teach or suggest what happens if his weighted estimation uses less than the total bandwidth that can be carried by the channel. Quite oppositely, he asserts that his weighted algorithm estimates efficiently and correctly the first time.

Anantharamu teaches a multiplexing system that continuously determines an available network bandwidth. Based on the available bandwidth, an adaptive transcoder then adjusts its coding bit rate. The transcoded streams are then fed into a conventional data streamer (see paragraph 35 for his “conventional streamer 325”). No further modification of bandwidth usage is performed by Anantharamu’s system after transcoding has been performed.

Thus, neither Anantharamu nor Gatepin teach a multiplexer that both a) “schedule packets from the multiple transcoded bitstreams” and b) “determine if bandwidth is available on the channel after the multiple transcoded bitstreams have been scheduled by the multiplexer, and if so, allocate additional packets from the multiple transcoded bitstreams to use the available bandwidth”, as recited in claim 1.

For at least these reasons, Applicants respectfully submit that any combination of Gatepin with Anantharamu does not teach or suggest all the limitations of independent claim 1, and that the outstanding rejection of claim 1 should be withdrawn.

Independent claims 9, 19 and 22 recite similar limitations as claim 1, and hence, it is respectfully submitted that the rejections of these independent claims be withdrawn for at least the reasons set forth above with regard to independent claim 1.

Dependent claims 2-8, 10-18 and 20-21 each depend either directly or indirectly from independent claims 1, 9, and 19, respectively, and are patentable over the cited art of record for at least the reasons set forth above with respect to the independent claims. In addition, the dependent claims recite additional elements which when taken in the context of the claimed invention further patentably distinguish the art of record.

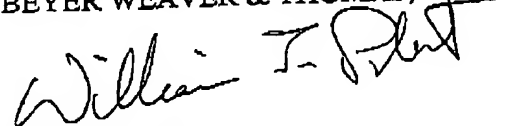
Based on the foregoing, Applicants respectfully request that all pending claims are allowable over the art of record. Withdrawal of all rejection under 35 U.S.C. § 103(a) is therefore respectfully requested.

CONCLUSION

Applicants believe that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,

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